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ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/6 4/2  
12817A LANCE MISSILE NUMBER 2241, ROUND 292 NUMBER ECL (20 OCTO--ETC(U)  
OCT 76

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October 1976

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METEOROLOGICAL DATA REPORT

12817A LANCE  
MISSILE NO. 2241, ROUND NO. 292 ECL  
(20 October 1976)

BY

WSMR METEOROLOGICAL TEAM

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ATMOSPHERIC SCIENCES LABORATORY  
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 14 DR-930	2. GOVT ACCESSION NO. (9) Meteorological data rept.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 12817A LANCE MISSILE NO. 2241, ROUND NO. 292 ECL = (20 October 1976)	5. TYPE OF REPORT & PERIOD COVERED	
7. AUTHOR(s) WSMR Meteorological Team	6. PERFORMING ORG. REPORT NUMBER	
9. PERFORMING ORGANIZATION NAME AND ADDRESS	8. CONTRACT OR GRANT NUMBER(s) 16 DA Task 1T665702D127-02	
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Command Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Command Ft. Monmouth, New Jersey	12. REPORT DATE 11 October 1976	
	13. NUMBER OF PAGES 31	
	15. SECURITY CLASS. (of this report) UNCLASSIFIED	
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release; distribution unlimited.		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)  1. Ballistics 2. Meteorology 3. Wind		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  Meteorological data gathered for the launching of 12817A LANCE, Missile Number 2241, Round Number 292 ECL, are presented in tabular form.		

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## INTRODUCTION

12817A Lance, Missile Number 2241, Round Number 292 ECL, was launched from Ratscat, White Sands Missile Range (WSMR), New Mexico, at 1400 HRS MDT, 20 October 1976. The scheduled launch time was 1400 HRS MDT.

## DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3,957.20	FEET/MSL
PRESSURE	885.9	MBS
TEMPERATURE	16.3	°C
RELATIVE HUMIDITY	34	%
DEW POINT	0.4	°C
DENSITY	1,062.1	GM/M <sup>3</sup>
WIND SPEED	02	MPH
WIND DIRECTION	100	DEGREES
CLOUD COVER	9	Ci

TABLE I. SURFACE OBSERVATIONS TAKEN AT RATSCAT,  
1401 HRS MDT/20 OCTOBER 1976.



T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG
-0.30	CALM	
-0.20	CALM	
-0.10	CALM	
0.00	CALM	

TABLE II. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 1  
12817A LANCE, MISSILE NO. 2241, ROUND NO. 292 ECL  
LAUNCHED FROM RATSCAT, 1400 MDT/20 OCTOBER 1976

WSTM COORDINATES: X = 513,320.99 Y = 357,953.60 Z = 3,957.20

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	100	2.0
100		CALM
200		
300		
400		
500		CALM
600	180	1.0
700		2.0
800		4.0
900		6.0
1000	180	8.0
1100	177	10.0
1200	177	11.0
1300	178	12.0
1400	176	13.0
1500	174	13.0
1600	174	14.0
1700	172	
1800	172	
1900	172	
2000	172	14.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	172	14.0
2200	172	
2300	174	
2400	176	
2500	180	
2600	180	
2700	181	
2800	181	
2900	181	14.0
3000	181	15.0
3100	180	15.0
3200	180	16.0
3300	178	17.0
3400	177	17.0
3500	174	17.0
3600	171	16.0
3700	171	15.0
3800	173	15.0
3900	172	14.0
4000	174	14.0
4100	176	14.0

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1  
RELEASED FROM RATSCAT, AT 1400 MDT/20 OCTOBER 1976  
12817A LANCE, MISSILE NO. 2241, ROUND NO. 292 ECL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 513,320.99 Y = 357,953.60 Z = 3,957.20

APPROXIMATELY: 1/4 MILE SOUTHEAST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	180	13.0
4300	184	12.0
4400	187	11.0
4500	190	10.0
4600	197	9.0
4700	205	7.0
4800	211	6.0
4900	220	8.0
5000	230	8.0
5100	231	9.0
5200	235	10.0
5300	235	10.0
5400	233	8.0
5500	233	8.0
5600	236	11.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
5700	239	12.0
5800	238	13.0
5900	237	13.0
6000	236	14.0
6100	234	14.0
6200	233	15.0
6300	230	14.0
6400	228	14.0
6500	225	14.0
6600	217	14.0
6700	212	13.0
6800	212	13.0
6900	212	13.0
7000	212	13.0

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.



HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR		CALM
100		CALM
200		CALM
300	339	2.0
400	334	1.0
500		CALM
600	180	1.0
700	166	2.0
800	162	3.0
900	166	6.0
1000	166	8.0
1100	163	10.0
1200	164	10.0
1300	166	11.0
1400	165	12.0
1500	166	12.0
1600	166	12.0
1700	166	13.0
1800	166	13.0
1900	164	13.0
2000	167	13.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	167	13.0
2200	169	14.0
2300	172	
2400	176	
2500	176	
2600	180	
2700	184	
2800	187	
2900	190	
3000	190	14.0
3100	188	13.0
3200	182	12.0
3300	179	11.0
3400	176	12.0
3500	176	12.0
3600	174	13.0
3700	172	14.0
3800	172	13.0
3900	172	13.0
4000	173	13.0
4100	175	12.0

TABLE IV. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2  
RELEASED FROM RATSCAT, AT 1408 MDT/20 OCTOBER 1976  
12817A LANCE, MISSILE NO. 2241, ROUND NO. 292 ECL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 513,320.99 Y = 357,953.60 Z = 3,957.20

APPROXIMATELY: 1/4 MILE SOUTHEAST OF LAUNCHER.

NOTE: NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	179	12.0	6600	236	13.0
4300	183	11.0	6700	228	12.0
4400	189	10.0	6800	216	12.0
4500	193	9.0	6900	215	12.0
4600	200	8.0	7000		13.0
4700	213	7.0	7100		
4800	218	6.0	7200		
4900	225	5.0	7300		
5000	225	5.0	7400		13.0
5100	231	6.0	7500	215	12.0
5200	230	8.0	7600	218	12.0
5300	225	8.0	7700	221	12.0
5400	225	8.0	7800	225	12.0
5500	225	8.0	7900	229	13.0
5600	226	11.0	8000	234	13.0
5700	236	12.0	8100	238	11.0
5800	241	12.0	8200	239	10.0
5900	240	11.0	8300	238	9.0
6000	235	12.0	8400	237	9.0
6100	233	12.0	8500	234	8.0
6200	238	13.0	8600	229	8.0
6300	240	13.0	8700	227	8.0
6400	239	14.0	8800	220	7.0
6500	239	14.0	8900	216	7.0

TABLE IV. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
9000	216	7.0
9100	225	8.0
9200	229	9.0
9300	229	
9400	231	
9500	233	
9600	236	
9700	238	9.0
9800	246	10.0
9900	251	11.0
10000	255	12.0
10100	260	11.0
10200	265	10.0
10300	273	9.0
10400	280	9.0
10500	287	9.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
10600	291	8.0
10700	290	9.0
10800	286	
10900	284	
11000	273	
11100	264	
11200	264	
11300	266	
11400	279	
11500	282	
11600	277	9.0
11700	270	8.0
11800	267	8.0
11900	258	7.0
12000	248	5.0

TABLE IV. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.



STATION ALTITUDE 4051.00 FEET MSL  
20 OCT. 76  
ASCENSION NO. 375

1350 HRS MDT

SIGNIFICANT LEVEL DATA  
2940030325  
JALLEN

WSTM SITE COORDINATES  
450491.60 FEET E  
464023.05 FEET N

TABLE V

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM. PERCENT
MILL IBARS	ALTITUDE MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
883.0	4051.0	15.0	-5.4	24.0
850.0	5101.2	11.3	-10.2	21.0
813.0	6313.1	8.0	-13.6	20.0
769.0	7816.3	6.9	-14.5	20.0
700.0	10332.4	2.6	-12.0	33.0
696.0	10484.5	2.0	-10.2	40.0
693.0	10599.2	2.6	-18.1	20.0
686.0	10868.6	2.3	-19.5	18.0
626.0	12860.0	-2.1	-20.4	23.0
623.0	13399.1	-2.1	-22.0	20.0
500.0	19007.4	-14.6	-32.5	20.0
472.0	20434.4	-17.6	-33.6	23.0
439.0	22206.5	-21.2	-28.6	51.0
400.0	24444.4	-25.9	-34.0	46.0
379.0	25720.9	-29.2	-37.1	46.0
372.0	26158.6	-30.0	-39.2	40.0
363.0	26732.7	-25.9	-43.5	25.0
350.0	27586.5	-30.6	-45.3	22.0
315.0	30016.3	-37.2	-49.5	25.0
300.0	31118.4	-40.5		
250.0	35137.7	-48.5		
200.0	39865.2	-58.5		
162.0	44189.1	-62.5		
150.0	45758.6	-61.3		
126.0	49313.9	-62.6		
118.0	50641.9	-64.5		
113.0	51514.5	-64.5		
100.0	53949.6	-69.3		
85.0	57159.4	-68.2		
70.0	61063.7	-62.0		

STATION ALTITUDE 4051.00 FEET MSL  
 20 OCT. 76  
 ASCENSION NO. 325

SIGNIFICANT LEVEL DATA  
 2940030325  
 JALLEN

WSTM SITE COORDINATES  
 460451.60 FEET E  
 464023.05 FEET N

TABLE V (CONT)

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE		REL. HUM. PERCENT
	AIR DEGREES	DEWPOINT CENTIGRADE	
50.0 67960.9	-60.3		
35.0 75449.6	-52.0		
30.0 78747.4	-52.4		
25.0 82663.2	-50.4		

STATION ALTITUDE 4051.00 FEET MSL  
20 OCT. 76  
ASCENSION NO. 325

1350 HRS MDT

UPPER AIR DATA  
2540030325  
JALLEN

WSTM SITE COORDINATES  
450491.60 FEET E  
464023.05 FEET N

TABLE VI

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DIRECTION (DEGREES (TN))	WIND SPEED KNOTS	INDEX OF REFRACTION
					KNOTS	MS			
4051.0	883.0	15.0	24.0	1065.7	661.9		140.0	2.9	1.000255
4500.0	868.7	13.4	22.7	1054.5	660.0		146.1	3.3	1.000251
5000.0	853.1	11.7	21.3	1042.2	657.9		151.4	3.7	1.000246
5500.0	837.6	10.2	20.7	1028.6	656.2		155.6	4.2	1.000241
6000.0	822.4	8.9	20.3	1014.9	654.6		168.3	4.4	1.000237
6500.0	807.4	7.9	20.0	999.9	653.4		186.2	4.7	1.000233
7000.0	792.6	7.5	20.0	982.9	653.0		203.8	5.9	1.000229
7500.0	778.1	7.1	20.0	966.1	652.5		215.5	7.6	1.000225
8000.0	763.7	6.6	20.9	950.2	651.9		221.7	8.2	1.000222
8500.0	749.6	5.7	23.5	935.4	650.9		226.0	8.5	1.000219
9000.0	735.7	4.9	26.1	920.8	650.0		227.7	9.6	1.000216
9500.0	722.1	4.0	28.7	906.5	649.0		225.4	10.7	1.000213
10000.0	708.7	3.2	31.3	892.4	648.0		221.5	12.0	1.000211
10500.0	695.6	2.1	37.3	875.2	646.8		213.1	11.4	1.000209
11000.0	682.6	2.0	18.3	863.6	646.5		207.1	8.7	1.000199
11500.0	669.7	.9	15.6	850.7	645.2		230.4	7.6	1.000196
12000.0	657.1	-2	20.8	838.1	643.9		227.4	12.2	1.000193
12500.0	644.8	-1.3	22.1	825.7	642.6		227.9	13.4	1.000190
13000.0	632.6	-2.1	22.2	812.5	641.6		228.3	14.5	1.000187
13500.0	620.5	-2.3	20.0	797.7	641.3		228.6	15.7	1.000183
14000.0	608.5	-3.4	20.0	785.5	640.0		229.9	16.0	1.000180
14500.0	596.7	-4.6	20.0	773.5	638.7		233.2	14.8	1.000177
15000.0	585.1	-5.7	20.0	761.6	637.3		237.0	13.7	1.000174
15500.0	573.7	-6.8	20.0	750.0	636.0		242.2	12.5	1.000171
16000.0	562.6	-7.9	20.0	738.5	634.6		254.6	10.5	1.000168
16500.0	551.7	-9.0	20.0	727.3	633.3		263.8	10.0	1.000165
17000.0	541.0	-10.1	20.0	716.2	631.9		264.5	10.7	1.000163
17500.0	530.4	-11.2	20.0	705.3	630.6		261.0	12.5	1.000160
18000.0	520.1	-12.4	20.0	694.6	629.2		258.0	15.7	1.000157
18500.0	510.0	-13.5	20.0	684.0	627.9		255.0	17.6	1.000155



STATION ALTITUDE 4051.00 FEET MSL  
20 OCT. 76  
ASCENSION NO. 325  
1350 HRS MDT

UPPER AIR DATA  
2540030325  
JALLEN

WSTM SITE COORDINATES  
450491.60 FEET E  
464023.05 FEET N

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
19000.0	500.1	-14.6	20.0	673.6	626.5	260.8	19.5	1.000152
19500.0	490.2	-15.6	21.0	662.9	625.3	263.3	21.2	1.000150
20000.0	480.4	-16.7	22.1	652.3	624.0	264.5	24.0	1.000147
20500.0	470.7	-17.7	24.0	641.5	622.7	265.3	27.1	1.000145
21000.0	461.2	-18.7	31.9	631.3	621.5	267.4	30.1	1.000143
21500.0	451.9	-19.8	35.8	621.0	620.3	269.2	33.1	1.000141
22000.0	442.7	-20.8	47.7	610.8	619.0	270.8	35.6	1.000139
22500.0	433.7	-21.8	50.3	600.8	617.8	271.6	38.1	1.000137
23000.0	424.8	-22.9	49.2	591.0	616.5	271.7	40.5	1.000135
23500.0	416.0	-23.9	48.1	581.3	615.2	271.9	42.5	1.000132
24000.0	407.5	-25.0	47.0	571.7	613.8	272.0	45.2	1.000130
24500.0	399.1	-26.0	46.0	562.4	612.5	273.0	46.8	1.000127
25000.0	390.7	-27.3	46.0	553.6	610.9	274.1	48.1	1.000125
25500.0	382.6	-28.6	46.0	544.9	609.3	272.7	49.7	1.000123
26000.0	374.5	-29.7	42.2	535.8	607.9	271.5	51.4	1.000121
26500.0	366.6	-29.9	31.1	525.1	607.6	270.8	53.5	1.000118
27000.0	358.9	-30.1	24.1	514.4	607.4	271.0	56.4	1.000115
27500.0	351.3	-30.5	22.3	504.3	606.9	273.0	58.8	1.000113
28000.0	343.8	-31.7	22.5	496.0	605.4	274.1	61.0	1.000111
28500.0	336.4	-33.1	23.1	488.1	603.6	274.3	62.9	1.000109
29000.0	329.2	-34.4	23.7	480.4	601.9	274.3	63.6	1.000108
29500.0	322.1	-35.8	24.4	472.8	600.2	274.2	63.4	1.000106
30000.0	315.2	-37.2	25.0	465.3	598.5	274.0	62.5	1.000104
30500.0	308.3	-38.6	14.0**	458.0	596.6	273.8	61.4	1.000102
31000.0	301.6	-40.1	2.7**	450.9	594.7	273.2	62.8	1.000100
31500.0	294.9	-41.3		443.0	593.2	272.7	64.3	1.000099
32000.0	288.2	-42.3		434.9	592.0	272.0	67.3	1.000097
32500.0	281.8	-43.2		427.0	590.7	271.3	70.3	1.000095
33000.0	275.5	-44.2		419.2	589.4	270.4	72.4	1.000093
33500.0	269.3	-45.2		411.6	588.1	269.6	74.5	1.000092

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL  
20 OCT. 76 1350 HRS MDT  
ASCENSION NO. 325

UPPER AIR DATA  
2940030325  
JALLEN

WSTM SITE COORDINATES  
450451.60 FEET E  
464023.05 FEET N

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
34000.0	263.2	-46.2		404.1	586.8	265.5	76.2	1.000050
34500.0	257.3	-47.2		396.8	585.6	269.5	77.7	1.000088
35000.0	251.6	-48.2		389.6	584.3	265.4	78.6	1.000077
35500.0	245.8	-49.3		382.4	582.9	269.1	79.3	1.000085
36000.0	240.0	-50.3		375.3	581.5	268.3	79.7	1.000074
36500.0	234.4	-51.4		368.3	580.2	267.4	79.6	1.000082
37000.0	229.0	-52.4		361.4	578.8	266.5	79.0	1.000070
37500.0	223.6	-53.5		354.7	577.4	265.7	78.1	1.000079
38000.0	218.4	-54.6		348.1	576.0	265.0	77.0	1.000078
38500.0	213.3	-55.6		341.6	574.6	264.4	77.0	1.000076
39000.0	208.3	-56.7		335.3	573.2	263.8	77.8	1.000075
39500.0	203.5	-57.7		329.0	571.8	263.2	78.5	1.000073
40000.0	198.7	-58.6		322.6	570.6	262.8	79.1	1.000072
40500.0	193.9	-59.1		315.6	570.0	262.7	78.9	1.000070
41000.0	189.2	-59.5		308.6	569.4	263.1	78.0	1.000069
41500.0	184.7	-60.0		301.9	568.8	263.9	76.4	1.000067
42000.0	180.2	-60.5		295.2	568.1	265.4	74.2	1.000066
42500.0	175.9	-60.9		288.8	567.5	266.7	71.9	1.000064
43000.0	171.7	-61.4		282.4	566.9	267.8	69.2	1.000063
43500.0	167.5	-61.9		276.2	566.3	268.7	66.7	1.000062
44000.0	163.5	-62.3		270.2	565.7	268.8	64.8	1.000060
44500.0	159.5	-62.3		263.6	565.7	269.0	63.0	1.000059
45000.0	155.7	-61.9		256.7	566.3	265.2	61.4	1.000057
45500.0	151.9	-61.5		250.0	566.8	269.5	60.0	1.000056
46000.0	148.2	-61.4		243.9	566.9	270.1	59.2	1.000054
46500.0	144.6	-61.6		238.2	566.7	270.8	58.5	1.000053
47000.0	141.1	-61.8		232.6	566.4	271.5	58.2	1.000052
47500.0	137.7	-61.9		227.2	566.2	272.3	57.9	1.000051
48000.0	134.4	-62.1		221.8	565.9	272.3	56.6	1.000049
48500.0	131.1	-62.3		216.7	565.7	272.2	55.1	1.000048

STATION ALTITUDE 4051.00 FEET MSL  
20 OCT. 76 1350 HRS MDT  
ASCENSION NO. 325

UPPER AIR DATA  
2940030325  
JALLEN

WSTM SITE COORDINATES  
450451.60 FEET E  
464023.05 FEET N

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
49000.0	128.0	-62.5		211.6	565.4	272.4	53.3	1.000047
49500.0	124.8	-62.9		206.8	564.9	272.6	51.5	1.000046
50000.0	121.8	-63.6		202.5	564.0	273.3	50.5	1.000045
50500.0	118.8	-64.3		198.2	563.0	274.1	49.9	1.000044
51000.0	115.9	-64.5		193.5	562.7	274.4	49.5	1.000043
51500.0	113.1	-64.5		188.8	562.7	274.1	49.3	1.000042
52000.0	110.3	-65.5		185.0	561.4	273.9	49.1	1.000041
52500.0	107.5	-66.4		181.2	560.1	273.2	48.7	1.000040
53000.0	104.9	-67.4		177.6	558.8	272.6	48.4	1.000040
53500.0	102.3	-68.4		174.0	557.4	272.3	48.0	1.000039
54000.0	99.7	-69.3		170.4	556.2	272.2	47.7	1.000038
54500.0	97.3	-69.1		166.0	556.5	272.1	47.4	1.000037
55000.0	94.8	-68.9		161.8	556.7	272.2	46.9	1.000036
55500.0	92.5	-68.8		157.6	557.0	272.4	46.3	1.000035
56000.0	90.1	-68.6		153.5	557.2	272.5	45.6	1.000034
56500.0	87.9	-68.4		149.5	557.4	272.7	44.8	1.000033
57000.0	85.7	-68.3		145.7	557.7	272.8	43.3	1.000032
57500.0	83.6	-67.7		141.7	558.5	273.0	41.5	1.000032
58000.0	81.5	-66.9		137.7	559.5	273.2	39.1	1.000031
58500.0	79.5	-66.1		133.8	560.6	273.6	35.7	1.000030
59000.0	77.6	-65.3		130.0	561.7	273.9	32.3	1.000029
59500.0	75.7	-64.5		126.3	562.8	274.3	28.9	1.000028
60000.0	73.8	-63.7		122.7	563.8	274.7	25.6	1.000027
60500.0	72.0	-62.9		119.3	564.9	275.1	22.6	1.000027
61000.0	70.2	-62.1		115.9	566.0	275.7	19.8	1.000026
61500.0	68.5	-61.9		113.0	566.2	276.3	17.2	1.000025
62000.0	66.9	-61.8		110.2	566.4	276.8	15.0	1.000025
62500.0	65.3	-61.6		107.5	566.6	277.3	13.0	1.000024
63000.0	63.7	-61.5		104.8	566.7	275.6	14.2	1.000023
63500.0	62.2	-61.4		102.3	566.9	274.3	15.3	1.000023



UPPER AIR DATA  
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STATION ALTITUDE 4051.00 FEET MSL  
20 OCT. 76 1350 HRS MDT  
ASCENSION NO. 325

WSTM SITE COORDINATES  
450451.60 FEET E  
464023.05 FEET N

TABLE VI (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
64000.0	60.7	-61.3		95.7	567.1	272.9	17.2	1.000022
64500.0	59.2	-61.2		97.3	567.2	271.7	19.4	1.000022
65000.0	57.8	-61.0		94.9	567.4	271.0	21.1	1.000021
65500.0	56.4	-60.9		92.5	567.6	271.1	21.5	1.000021
66000.0	55.0	-60.8		90.3	567.7	271.2	22.0	1.000020
66500.0	53.7	-60.7		88.0	567.9	271.8	21.8	1.000020
67000.0	52.4	-60.5		85.9	568.1	272.6	21.3	1.000019
67500.0	51.1	-60.4		83.7	568.2	273.0	20.7	1.000019
68000.0	49.9	-60.3		81.7	568.4	272.5	19.7	1.000018
68500.0	48.7	-59.7		79.5	569.2	272.0	18.6	1.000018
69000.0	47.6	-59.1		77.5	569.9	270.5	17.1	1.000017
69500.0	46.5	-58.6		75.4	570.6	268.4	15.5	1.000017
70000.0	45.4	-58.0		73.5	571.4	265.7	14.1	1.000016
70500.0	44.3	-57.5		71.6	572.1	262.8	13.8	1.000016
71000.0	43.3	-56.9		69.7	572.9	259.7	13.6	1.000016
71500.0	42.2	-56.4		67.9	573.6	257.2	14.4	1.000015
72000.0	41.2	-55.8		66.1	574.3	255.5	16.2	1.000015
72500.0	40.3	-55.3		64.4	575.0	254.2	18.0	1.000014
73000.0	39.3	-54.7		62.7	575.8	254.0	20.4	1.000014
73500.0	38.4	-54.2		61.1	576.5	254.0	23.0	1.000014
74000.0	37.5	-53.6		59.5	577.2	254.0	25.4	1.000013
74500.0	36.6	-53.1		58.0	578.0	253.7	26.0	1.000013
75000.0	35.8	-52.5		56.5	578.7	253.5	26.6	1.000013
75500.0	34.9	-52.0		55.0	579.3	252.8	26.5	1.000012
76000.0	34.1	-52.1		53.7	579.3	250.7	24.6	1.000012
76500.0	33.3	-52.1		52.5	579.2	248.3	22.7	1.000012
77000.0	32.6	-52.2		51.3	579.1	245.5	21.0	1.000011
77500.0	31.8	-52.2		50.2	579.0	242.3	19.4	1.000011
78000.0	31.1	-52.3		49.0	578.9	238.6	17.9	1.000011
78500.0	30.3	-52.4		47.9	578.9	237.5	15.5	1.000011



UPPER AIR DATA  
2940030325  
JALLEN  
TABLE VI (CONT)

STATION ALTITUDE 4051.00 FEET MSL  
20 OCT. 76 1350 HRS MDT  
ASCENSION NO. 325

WSTM SITE COORDINATES  
45491.60 FEET E  
464023.05 FEET N

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
70000.0	29.6	-52.3		46.8	575.0	237.7	12.5	1.000010
79500.0	29.0	-52.0		45.6	579.3	238.1	9.6	1.000010
80000.0	28.3	-51.8		44.5	579.7	243.4	11.4	1.000010
80500.0	27.6	-51.5		43.5	580.0	247.3	13.8	1.000010
81000.0	27.0	-51.2		42.4	580.3			1.000009
81500.0	26.4	-51.0		41.4	580.7			1.000009
82000.0	25.8	-50.7		40.4	581.0			1.000009
82500.0	25.2	-50.5		39.4	581.3			1.000009

STATION ALTITUDE 4051.00 FEET MSL  
20 OCT. 76 1350 HRS MDT  
ASCENSION NO. 325

MANDATORY LEVELS  
2940030325  
JALLEN  
TABLE VII

WSTM SITE COORDINATES  
450451.60 FEET E  
464023.05 FEET N

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MTLLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5100.	11.3	-10.2	21.	152.3	3.8
800.0	6746.	7.7	-13.8	20.	195.2	5.2
750.0	8485.	5.8	-13.5	23.	226.0	8.9
700.0	10326.	2.6	-12.0	33.	216.1	11.6
650.0	12281.	-2.8	-20.1	22.	227.7	12.9
600.0	14365.	-4.2	-23.8	20.	232.3	15.1
550.0	16594.	-9.2	-27.5	20.	264.0	10.1
500.0	18988.	-14.6	-32.5	20.	260.8	19.5
450.0	21579.	-20.0	-29.7	41.	265.5	33.6
400.0	24412.	-25.9	-34.0	46.	272.9	46.6
350.0	27546.	-30.6	-45.3	22.	273.3	59.2
300.0	31067.	-40.5			273.1	63.1
250.0	35073.	-48.5			265.3	78.8
200.0	39783.	-58.5			262.9	78.9
175.0	42521.	-61.0			266.9	71.3
150.0	45652.	-61.3			269.8	59.6
125.0	49352.	-62.8			272.6	51.6
100.0	53802.	-69.3			272.2	47.8
80.0	58194.	-66.3			273.5	36.7
70.0	60877.	-62.0			275.8	19.4
60.0	64010.	-61.2			272.3	18.1
50.0	67731.	-60.3			272.6	19.8
40.0	72351.	-55.1			254.0	18.4
30.0	78442.	-52.4			237.6	14.1
25.0	82328.	-50.4				

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4940.00 FEET MSL  
20 OCT. 76  
ASCENSION NO. 249

SIGNIFICANT LEVEL DATA  
2540040249  
STALLION

WSTM SITE COORDINATES  
403783.00 FEET E  
701403.00 FEET N

TABLE VIII

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE		REL. HUM. PERCENT
854.5	4940.0	16.0	-9.0	17.0
850.0	5086.6	14.0	-2.4	32.0
909.8	6414.5	8.5	-6.1	35.0
753.6	8350.9	4.1	-10.7	33.0
700.0	10312.4	1.6	-14.5	29.0
567.4	15761.2	-5.1	-22.7	32.0
500.0	18932.5	-16.5	-29.3	32.0
426.4	22805.0	-24.9	-34.8	39.0
400.0	24326.7	-27.3	-29.4	82.0
366.4	26385.5	-32.1	-35.8	46.0
357.2	26977.0	-31.6	-42.7	32.0
315.2	29844.7	-39.0	-45.4	32.0
300.0	30954.0	-41.7		
250.0	34946.9	-50.3		
207.8	38840.6	-59.3		
200.0	39629.3	-59.7		
159.4	44263.2	-63.3		
150.0	45457.8	-62.2		
100.0	53654.0	-67.4		
84.4	57019.2	-68.2		
70.0	60762.9	-64.0		
57.0	64962.2	-59.5		
50.0	67666.9	-60.0		
47.0	68940.5	-60.8		
31.0	77685.0	-51.2		
30.0	78388.8	-51.8		
23.0	84076.0	-52.5		
22.0	85035.5	-48.3		
20.0	87117.0	-47.3		
14.5	94155.5	-47.4		

WSTM SITE COORDINATES  
403783.00 FEET E  
701402.00 FEET N

UPPER AIR DATA  
2540040C249  
STALLION

STATION ALTITUDE 4940.00 FEET MSL  
20 OCT. 76  
ASCENSION NO. 249  
1350 HRS MDT

TABLE IX

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
4940.0	854.5	16.0	17.0	1029.1	662.9	150.0	8.0	1.000243
5000.0	852.7	15.2	23.1	1028.4	662.1	151.4	8.0	1.000247
5500.0	837.3	12.3	32.9	1019.7	658.9	163.2	8.0	1.000249
6000.0	822.1	10.2	34.1	1008.8	656.4	174.3	8.4	1.000245
6500.0	807.2	8.3	34.9	997.3	654.2	184.0	9.1	1.000240
7000.0	792.4	7.2	34.4	983.1	652.8	186.2	8.7	1.000236
7500.0	777.8	6.0	33.9	969.0	651.4	188.8	7.9	1.000231
8000.0	763.5	4.9	33.4	955.2	650.1	200.2	7.5	1.000227
8500.0	749.4	3.9	32.7	941.0	648.9	213.1	8.8	1.000223
9000.0	735.4	3.3	31.7	925.7	648.1	223.9	10.8	1.000218
9500.0	721.7	2.6	30.7	910.6	647.3	225.9	12.4	1.000214
10000.0	708.3	2.0	29.6	895.7	646.6	224.5	13.5	1.000210
10500.0	695.0	1.2	29.1	881.4	645.7	220.9	13.3	1.000206
11000.0	681.7	.2	29.4	867.7	644.5	216.3	12.7	1.000203
11500.0	668.7	-7	29.7	854.3	643.3	214.8	11.9	1.000199
12000.0	655.9	-1.7	29.9	841.0	642.1	213.7	11.1	1.000196
12500.0	643.4	-2.7	30.2	828.0	641.0	219.6	10.7	1.000192
13000.0	631.1	-3.7	30.5	815.2	639.8	226.4	10.3	1.000189
13500.0	619.1	-4.7	30.8	802.6	638.6	237.5	10.0	1.000186
14000.0	607.3	-5.6	31.0	790.2	637.4	247.9	9.9	1.000183
14500.0	595.7	-6.6	31.3	778.0	636.2	254.5	9.7	1.000180
15000.0	584.3	-7.6	31.6	766.0	635.1	260.7	9.6	1.000176
15500.0	573.1	-8.6	31.9	754.2	633.9	265.2	9.1	1.000174
16000.0	562.0	-9.7	32.0	742.6	632.6	270.9	8.7	1.000171
16500.0	550.9	-10.8	32.0	731.2	631.2	279.1	8.2	1.000168
17000.0	540.1	-12.0	32.0	720.0	629.7	283.9	8.7	1.000165
17500.0	529.4	-13.2	32.0	709.0	628.3	283.9	10.3	1.000162
18000.0	518.9	-14.3	32.0	698.1	626.9	279.0	12.5	1.000159
18500.0	508.7	-15.5	32.0	687.5	625.5	272.4	15.5	1.000156
19000.0	498.6	-16.6	32.1	676.5	624.1	268.4	18.2	1.000154



STATION ALTITUDE 4940.00 FEET MSL  
20 OCT. 76  
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UPPER AIR DATA  
2540040249  
STALLION

WSTM SITE COORDINATES  
403783.00 FEET E  
701402.00 FEET N

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
19500.0	488.5	-17.7	-30.0	33.0	666.0	622.7		265.7	20.3	1.000151
20000.0	478.5	-18.8	-30.7	33.9	655.2	621.4		265.2	21.5	1.000149
20500.0	468.8	-19.9	-31.4	34.8	644.6	620.1		266.6	23.0	1.000146
21000.0	459.3	-21.0	-32.1	35.7	634.2	618.7		267.3	24.2	1.000144
21500.0	449.9	-22.1	-32.9	36.6	624.0	617.4		267.0	25.4	1.000141
22000.0	440.7	-23.2	-33.6	37.5	614.0	616.1		266.4	27.0	1.000139
22500.0	431.8	-24.2	-34.3	38.4	604.1	614.7		264.9	29.6	1.000137
23000.0	422.9	-25.2	-33.7	44.5	594.0	613.5		264.1	32.4	1.000134
23500.0	414.1	-26.0	-31.7	58.6	583.5	612.6		265.5	36.5	1.000133
24000.0	405.5	-26.8	-30.2	72.8	573.2	611.6		266.5	40.6	1.000131
24500.0	397.1	-27.7	-30.2	79.0	563.3	610.5		266.7	44.6	1.000129
25000.0	388.7	-28.9	-32.6	70.2	554.1	609.0		266.7	48.7	1.000126
25500.0	380.5	-30.0	-35.0	61.5	545.0	607.5		265.7	49.4	1.000123
26000.0	372.5	-31.2	-37.6	52.7	536.2	606.0		264.7	50.0	1.000121
26500.0	364.6	-32.0	-40.3	43.3	526.6	605.0		266.1	49.2	1.000118
27000.0	356.8	-31.7	-42.8	32.0	514.7	605.4		267.9	48.4	1.000116
27500.0	349.1	-32.9	-43.9	32.0	506.3	603.8		269.5	50.8	1.000114
28000.0	341.6	-34.2	-45.1	32.0	498.1	602.2		270.9	53.8	1.000112
28500.0	334.2	-35.5	-46.2	32.0	490.0	600.6		270.8	55.3	1.000110
29000.0	327.0	-36.8	-47.4	32.0	482.0	598.9		270.3	56.5	1.000108
29500.0	320.0	-38.1	-48.6	32.0	474.2	597.3		269.7	56.7	1.000106
30000.0	313.0	-39.4	-51.0	27.5**	466.4	595.7		268.9	55.8	1.000104
30500.0	306.1	-40.6	-58.1	13.1**	458.6	594.1		268.1	55.3	1.000102
31000.0	299.4	-41.8			450.8	592.6		267.1	55.5	1.000100
31500.0	292.6	-42.9			442.7	591.2		266.2	56.5	1.000099
32000.0	286.0	-44.0			434.7	589.8		266.5	58.5	1.000097
32500.0	279.6	-45.0			426.9	588.4		267.0	61.7	1.000095
33000.0	273.2	-46.1			419.3	587.0		267.6	63.4	1.000093
33500.0	267.1	-47.2			411.7	585.6		268.2	64.0	1.000092
34000.0	261.0	-48.3			404.4	584.2		268.8	64.6	1.000090

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4940.00 FEET MSL  
20 OCT. 76  
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UPPER AIR DATA  
2940040249  
STALLION

WSTM SITE COORDINATES  
403783.00 FEET E  
701403.00 FEET N

1350 HRS MDT

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
34500.0	255.2	-49.3			397.1	582.8	269.2	66.4	1.000044
35000.0	249.4	-50.4			390.0	581.4	269.5	69.3	1.000087
35500.0	243.5	-51.6			382.9	579.9	269.5	72.6	1.000045
36000.0	237.8	-52.7			375.8	578.4	269.1	76.9	1.000084
36500.0	232.2	-53.9			369.0	576.9	268.7	81.1	1.000042
37000.0	226.8	-55.0			362.2	575.3	267.8	81.4	1.000081
37500.0	221.5	-56.2			355.6	573.8	266.9	81.2	1.000079
38000.0	216.3	-57.4			349.1	572.3	265.9	81.1	1.000078
38500.0	211.2	-58.5			342.8	570.8	264.8	80.9	1.000076
39000.0	206.2	-59.4			336.0	569.6	263.8	80.8	1.000075
39500.0	201.3	-59.6			328.4	569.3	263.8	78.2	1.000073
40000.0	196.4	-60.0			321.0	568.8	264.0	75.4	1.000071
40500.0	191.7	-60.4			313.8	568.3	264.5	72.7	1.000070
41000.0	187.0	-60.8			306.8	567.8	265.5	70.0	1.000068
41500.0	182.5	-61.2			299.9	567.2	266.6	67.4	1.000067
42000.0	178.1	-61.5			293.2	566.7	266.8	66.8	1.000065
42500.0	173.8	-61.9			286.6	566.2	266.9	66.4	1.000064
43000.0	169.6	-62.3			280.2	565.7	267.0	66.1	1.000062
43500.0	165.5	-62.7			273.9	565.1	267.2	66.0	1.000061
44000.0	161.5	-63.1			267.8	564.6	267.4	66.0	1.000060
44500.0	157.6	-63.1			261.3	564.6	267.9	64.7	1.000058
45000.0	153.7	-62.6			254.4	565.2	268.6	62.6	1.000057
45500.0	150.0	-62.2			247.7	565.8	269.4	60.4	1.000055
46000.0	146.3	-62.5			242.0	565.4	270.3	57.7	1.000054
46500.0	142.7	-62.8			236.4	565.0	271.3	55.0	1.000053
47000.0	139.2	-63.2			230.9	564.5	272.5	52.7	1.000051
47500.0	135.8	-63.5			225.6	564.1	273.8	52.2	1.000050
48000.0	132.5	-63.8			220.4	563.7	275.2	51.7	1.000049
48500.0	129.2	-64.1			215.3	563.3	276.1	51.3	1.000048
49000.0	126.0	-64.4			210.4	562.8	276.5	51.0	1.000047

UPPER AIR DATA  
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TABLE IX (CONT)

STATION ALTITUDE 4940.00 FEET MSL  
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WSTM SITE COORDINATES  
4C3763.00 FEET E  
701403.00 FEET N

1350 HRS MDT

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX CF
						DIRECTION DEGREES(TN)	SPEED KNOTS	
49500.0	122.9	-64.8		205.5	562.4	276.9	50.7	1.000046
50000.0	119.9	-65.1		200.8	562.0	276.4	49.4	1.000045
50500.0	117.0	-65.4		196.1	561.5	275.8	48.1	1.000044
51000.0	114.1	-65.7		191.6	561.1	275.6	46.9	1.000043
51500.0	111.3	-66.0		187.2	560.7	276.0	45.5	1.000042
52000.0	108.6	-66.3		182.9	560.2	276.4	44.9	1.000041
52500.0	105.9	-66.7		178.7	559.8	275.7	44.0	1.000040
53000.0	103.3	-67.0		174.6	559.4	274.6	43.2	1.000039
53500.0	100.8	-67.3		170.5	558.9	273.5	42.3	1.000038
54000.0	98.3	-67.5		166.5	558.7	273.2	40.8	1.000037
54500.0	95.8	-67.6		162.4	558.5	272.8	39.2	1.000036
55000.0	93.4	-67.7		158.5	558.4	272.7	38.2	1.000035
55500.0	91.1	-67.8		154.6	558.2	272.9	37.6	1.000034
56000.0	88.8	-68.0		150.8	558.1	273.1	37.0	1.000034
56500.0	86.6	-68.1		147.2	557.9	272.5	35.6	1.000033
57000.0	84.5	-68.2		143.6	557.7	271.8	34.2	1.000032
57500.0	82.4	-67.7		139.7	558.5	272.3	33.0	1.000031
58000.0	80.4	-67.1		135.9	559.2	273.8	32.0	1.000030
58500.0	78.4	-66.5		132.2	560.0	275.6	31.2	1.000029
59000.0	76.4	-66.0		128.5	560.7	279.1	32.0	1.000029
59500.0	74.6	-65.4		125.0	561.5	282.5	33.0	1.000028
60000.0	72.7	-64.9		121.6	562.3	283.1	32.8	1.000027
60500.0	70.9	-64.3		118.2	563.0	282.5	32.1	1.000026
61000.0	69.2	-63.7		115.1	563.8	281.9	31.4	1.000026
61500.0	67.5	-63.2		112.0	564.5	281.6	30.0	1.000025
62000.0	65.9	-62.7		109.1	565.2	281.4	28.6	1.000024
62500.0	64.3	-62.1		106.1	565.9	281.1	27.1	1.000024
63000.0	62.7	-61.6		103.3	566.6	280.6	25.7	1.000023
63500.0	61.2	-61.1		100.6	567.3	280.1	24.2	1.000022
64000.0	59.7	-60.5		97.9	568.1	278.6	22.4	1.000022



STATION ALTITUDE 4940.00 FEET MSL  
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UPPER AIR DATA  
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WSTM SITE COORDINATES  
4C3783.00 FEET E  
701403.00 FEET N

1350 HRS MDT

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
64500.0	58.3	-60.0		95.3	568.8	274.9	19.7	1.000021
65000.0	56.9	-59.5		92.8	569.4	270.0	17.2	1.000021
65500.0	55.5	-59.6		90.6	569.3	267.3	16.1	1.000020
66000.0	54.2	-59.7		88.5	569.2	267.3	16.2	1.000020
66500.0	52.9	-59.8		86.4	569.1	267.3	16.3	1.000019
67000.0	51.6	-59.9		84.4	568.9	261.5	17.7	1.000019
67500.0	50.4	-60.0		82.4	568.8	256.1	19.3	1.000018
68000.0	49.2	-60.2		80.5	568.5	252.3	20.8	1.000018
68500.0	48.0	-60.5		78.7	568.1	250.9	21.4	1.000018
69000.0	46.9	-60.7		76.9	567.8	249.5	22.0	1.000017
69500.0	45.8	-60.2		74.9	568.5	250.3	21.2	1.000017
70000.0	44.7	-59.6		72.9	569.3	252.7	19.7	1.000016
70500.0	43.6	-59.1		71.0	570.0	255.5	18.2	1.000016
71000.0	42.5	-58.5		69.2	570.7	256.0	18.9	1.000015
71500.0	41.6	-58.0		67.4	571.4	256.3	19.7	1.000015
72000.0	40.6	-57.4		65.6	572.2	256.7	20.8	1.000015
72500.0	39.7	-56.9		63.9	572.9	257.4	22.4	1.000014
73000.0	38.7	-56.3		62.3	573.6	258.1	24.0	1.000014
73500.0	37.8	-55.8		60.6	574.4	259.2	24.3	1.000014
74000.0	36.9	-55.2		59.1	575.1	260.6	23.9	1.000013
74500.0	36.1	-54.7		57.5	575.8	262.1	23.4	1.000013
75000.0	35.2	-54.1		56.0	576.5	263.6	21.9	1.000012
75500.0	34.4	-53.6		54.6	577.2	265.3	20.4	1.000012
76000.0	33.6	-53.0		53.2	578.0	265.3	18.3	1.000012
76500.0	32.8	-52.5		51.8	578.7	259.7	15.1	1.000012
77000.0	32.0	-52.0		50.4	579.4	251.1	12.0	1.000011
77500.0	31.3	-51.4		49.1	580.1	244.0	12.0	1.000011
78000.0	30.5	-51.5		48.0	580.0	240.4	13.6	1.000011
78500.0	29.8	-51.8		47.0	579.6	237.5	15.2	1.000010
79000.0	29.2	-51.9		45.9	579.5	240.4	17.1	1.000010



STATION ALTITUDE 4940.00 FEET MSL  
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UPPER AIR DATA  
2940040249  
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WSTM SITE COORDINATES  
QC3783.00 FEET E  
701403.00 FEET N

1350 HRS MDT

TABLE IX (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	FT/SEC			
79500.0	28.5	-51.9			44.9	579.4		243.0	19.0	1.000010
80000.0	27.8	-52.0			43.8	579.3		245.2	20.9	1.000010
80500.0	27.2	-52.1			42.8	579.3		245.0	20.9	1.000010
81000.0	26.6	-52.1			41.9	579.2		244.8	20.7	1.000009
81500.0	25.9	-52.2			40.9	579.1		244.5	20.6	1.000009
82000.0	25.3	-52.2			40.0	579.0		244.4	21.5	1.000009
82500.0	24.8	-52.3			39.1	578.9		244.4	22.5	1.000009
83000.0	24.2	-52.4			38.2	578.9		244.3	23.4	1.000008
83500.0	23.6	-52.4			37.3	578.8		244.6	24.2	1.000008
84000.0	23.1	-52.5			36.4	578.7		244.9	24.9	1.000008
84500.0	22.6	-50.6			35.3	581.1		245.2	25.7	1.000008
85000.0	22.0	-48.5			34.2	584.0		246.7	27.8	1.000008
85500.0	21.5	-48.1			33.3	584.5		248.1	29.9	1.000007
86000.0	21.0	-47.8			32.5	584.8		249.3	32.0	1.000007
86500.0	20.6	-47.6			31.8	585.1		249.8	32.9	1.000007
87000.0	20.1	-47.4			31.0	585.4		250.3	33.8	1.000007
87500.0	19.7	-47.3			30.3	585.5		250.7	34.6	1.000007
88000.0	19.2	-47.3			29.6	585.5		249.1	32.9	1.000007
88500.0	18.8	-47.3			29.0	585.4		247.1	31.0	1.000006
89000.0	18.4	-47.3			28.3	585.4		244.8	29.1	1.000006
89500.0	17.9	-47.3			27.7	585.4		243.3	27.4	1.000006
90000.0	17.5	-47.3			27.0	585.4		241.7	25.8	1.000006
90500.0	17.1	-47.3			26.4	585.4		239.8	24.1	1.000006
91000.0	16.7	-47.4			25.8	585.4		233.9	23.4	1.000006
91500.0	16.4	-47.4			25.3	585.4		227.1	23.1	1.000006
92000.0	16.0	-47.4			24.7	585.4		220.3	23.2	1.000005
92500.0	15.6	-47.4			24.1	585.4				1.000005
93000.0	15.3	-47.4			23.6	585.4				1.000005
93500.0	14.9	-47.4			23.1	585.4				1.000005
94000.0	14.6	-47.4			22.5	585.3				1.000005

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MANDATORY LEVELS  
2940000249  
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WSTM SITE COORDINATES  
403743.00 FEET E  
701403.00 FEET N

TABLE X

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5085.	14.0	-2.4	22.	153.5	7.9
800.0	6742.	7.8	-6.8	35.	186.4	9.2
750.0	8474.	3.9	-10.5	33.	212.5	8.7
700.0	10306.	1.6	-14.5	29.	222.6	13.5
650.0	12251.	-2.2	-17.3	30.	216.7	10.9
600.0	14322.	-6.3	-20.5	31.	252.3	9.8
550.0	16536.	-10.9	-24.3	32.	275.9	8.2
500.0	18913.	-16.5	-29.3	32.	268.8	17.9
450.0	21485.	-22.1	-32.8	37.	267.0	25.4
400.0	24296.	-27.3	-29.4	82.	266.6	43.2
350.0	27410.	-32.8	-43.8	32.	265.4	50.5
300.0	30904.	-41.7			267.2	55.8
250.0	34884.	-50.3			265.5	59.1
200.0	39549.	-59.7			263.9	77.5
175.0	42274.	-61.8			266.8	66.5
150.0	45393.	-62.2			269.4	60.4
125.0	49068.	-64.5			276.7	50.9
100.0	53511.	-67.4			273.4	41.8
80.0	57916.	-67.0			274.0	31.8
70.0	60580.	-54.0			282.2	31.7
60.0	63704.	-60.6			275.3	22.9
50.0	67441.	-60.0			254.5	19.9
40.0	72026.	-57.1			257.1	21.6
30.0	78089.	-51.8			238.2	14.8
25.0	81963.	-52.3			244.4	22.1
20.0	86748.	-47.3			250.4	34.0
15.0	92990.	-47.4				

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.